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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/620,930

07/16/2003

Dominic N. Lo Iacono

COHY-4491

8874

28289

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10/06/2004

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EXAMINER

HANNAHER, CONSTANTINE

ART UNIT

PAPER NUMBER

2878

DATE MAILED: 10/06/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/620,930

Applicant(s)

LO IACONO, DOMINIC N.

Examiner

Constantine Hannaher

Art Unit

2878

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11-21 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11-15 is/are rejected.
- 7) ☒ Claim(s) 16-21 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>20030716</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. The listing of references in the specification is not a proper information disclosure statement. 37 CFR 1.98(b) requires a list of all patents, publications, or other information submitted for consideration by the Office, and MPEP § 609 A(1) states, “the list may not be incorporated into the specification but must be submitted in a separate paper.” Therefore, unless the references have been cited by the examiner on form PTO-892, they have not been considered.

Claim Objections

2. Claim 14 is objected to because of the following informalities: perhaps the first line could have the word --comprises-- at the end of it? Appropriate correction is required.

3. Claim 15 is objected to because of the following informalities: the “transparent host material” finds its antecedent basis in the “host crystal that is transparent” of claim 14. Appropriate correction is required.

4. Claim 19 is objected to because of the following informalities: the “host material” finds its antecedent basis in the “host crystal that is transparent” of claim 14. Appropriate correction is required.

5. Claim 20 is objected to because of the following informalities: the “host material” finds its antecedent basis in the “host crystal that is transparent” of claim 14. Appropriate correction is required.

6. Claim 21 is objected to because of the following informalities: the “host material” finds its antecedent basis in the “host crystal that is transparent” of claim 14. Appropriate correction is required.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 11-13 are rejected under 35 U.S.C. 102(e) as being clearly anticipated by Singh *et al.* (US005837054A).

With respect to independent claim 11, Singh *et al.* discloses an ultraviolet detection system **1** (Fig. 3) comprising an optical system **6** capable of focusing (directing) incident radiation **4** (column 3, lines 33-34), an ultraviolet crystal filter **8** (column 3, line 39) having a pass band in a desired spectral region (Fig. 2, column 3, lines 20-24) and positioned as recited, and a radiation detection system **10** sensitive to radiation in at least the pass band of filter **8** (column 3, lines 41-42) and positioned as recited.

With respect to dependent claim 12, the desired spectral region in the ultraviolet detection system of Singh *et al.* includes radiation having a wavelength in the recited range (Fig. 2).

With respect to dependent claim 13, the optical system **6** in the ultraviolet detection system of Singh *et al.* includes filters (in the plural, column 3, lines 35-37). In view of the desire to detect ultraviolet wavelengths and absorb longer wavelengths as expressed by Singh *et al.* (column 1), it is inherent that the typical filters used in this type of system filter out radiation having wavelengths above those in the desired spectral region.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 14 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Singh *et al.* (US005837054A) in view of Guida (US005204773A).

With respect to dependent claim 14, the ultraviolet crystal filter 8 in the ultraviolet detection system of Singh *et al.* includes a crystal (column 1, line 63) that is transparent within at least the desired spectral region (Fig. 2) but the crystal does not include a dopant. Guida shows that an ultraviolet crystal filter 10 (Fig. 3) having a pass band in a desired spectral region (Fig. 1, the same desired spectral region that Singh *et al.* is interested in) may comprise a host crystal that is transparent within at least the desired spectral region (column 2, lines 64-68) and at least one dopant (column 2, lines 63-64 and column 3, line 30) incorporated with the host crystal. Furthermore, the dopant in the ultraviolet crystal filter of Guida provides optical absorption bands such that the crystalline (crystal as recited in claim 11) filter has the pass band within the desired optical region (column 3, line 67 to column 4, line 22). In view of the flexibility described by Guida in adjusting the particular transmittance by choice of dopant and choice of dosage, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the ultraviolet detection system 1 of Singh *et al.* to comprise an ultraviolet crystal filter in the form of a host crystal and dopant as suggested by Guida.

With respect to dependent claim 15, the transparent host material (crystal as recited in claim 14) suggested by Guida is one or more of the members in the recited group (column 2, lines 67-68).

Response to Submission(s)

11. The amendment filed November 10, 2003 has been entered.

Allowable Subject Matter

12. Claims 16-21 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

13. The following is a statement of reasons for the indication of allowable subject matter: in an ultraviolet detection system of the type recited, in view of the disclosure of Guida of calcium fluoride as a host crystal, the particular dopants are not suggested.

Conclusion

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Ciammaichella *et al.* (US004578583A) shows that the sequence, in an ultraviolet detection system **10** (Fig. 1), of an optical system **16**, an ultraviolet filter **20**, and a radiation detection system **22** has long been known.

15. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Constantine Hannaher whose telephone number is (571) 272-2437. The examiner can normally be reached on Monday-Friday with flexible hours.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David P. Porta can be reached on (571) 272-2444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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Constantine Hannaher
Primary Examiner